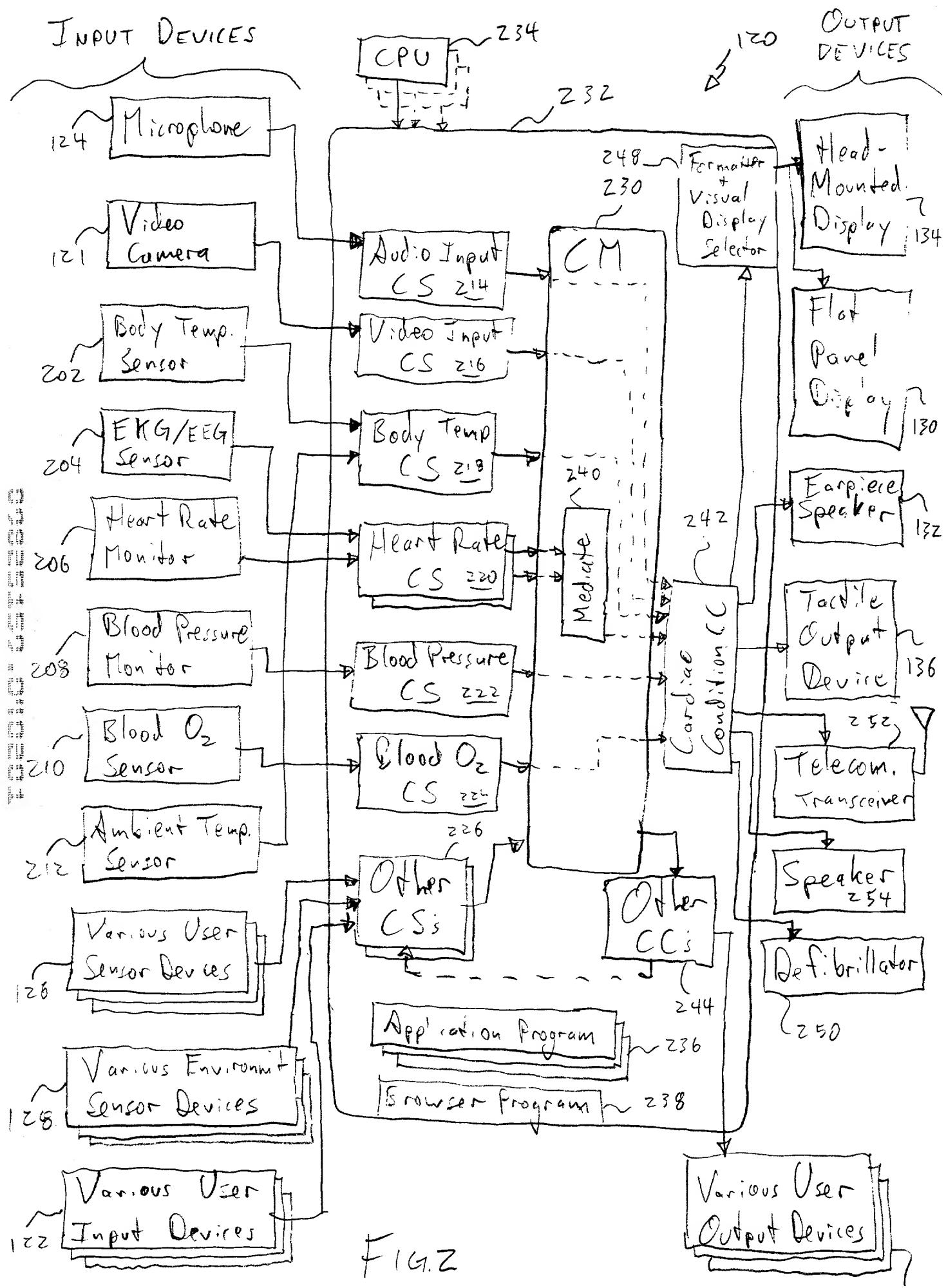


Fig. 1



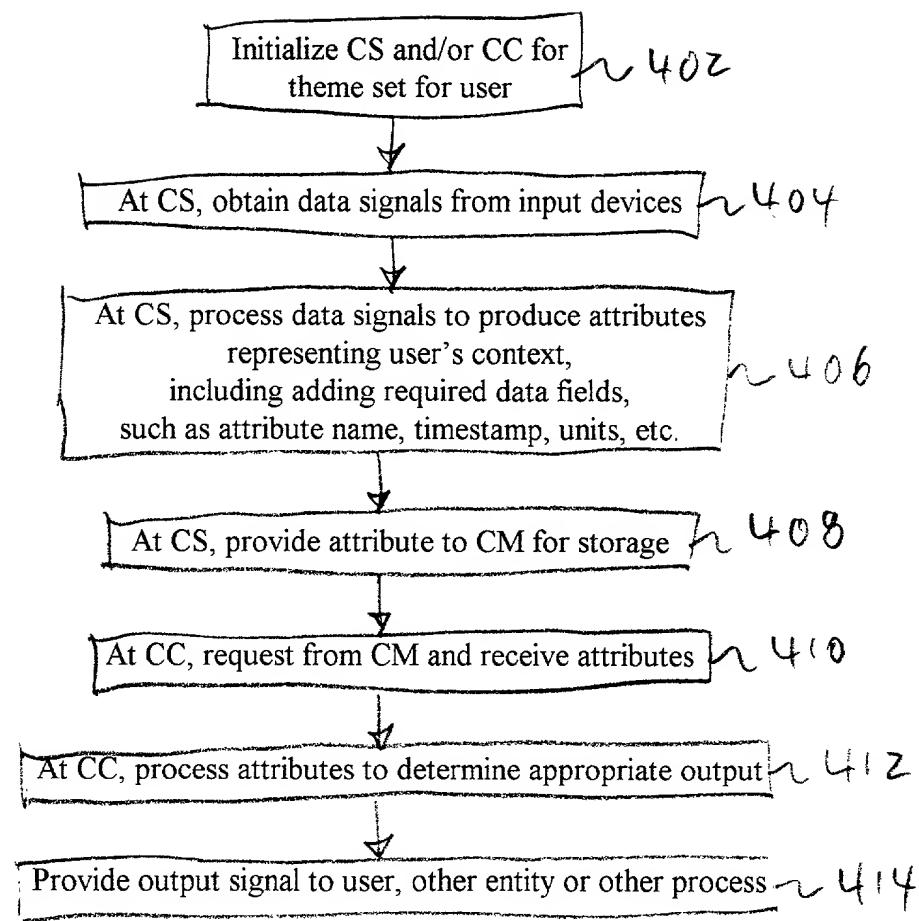


FIG 4

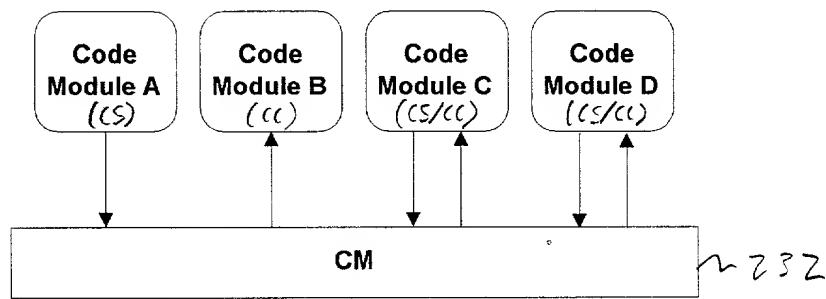


FIG 3

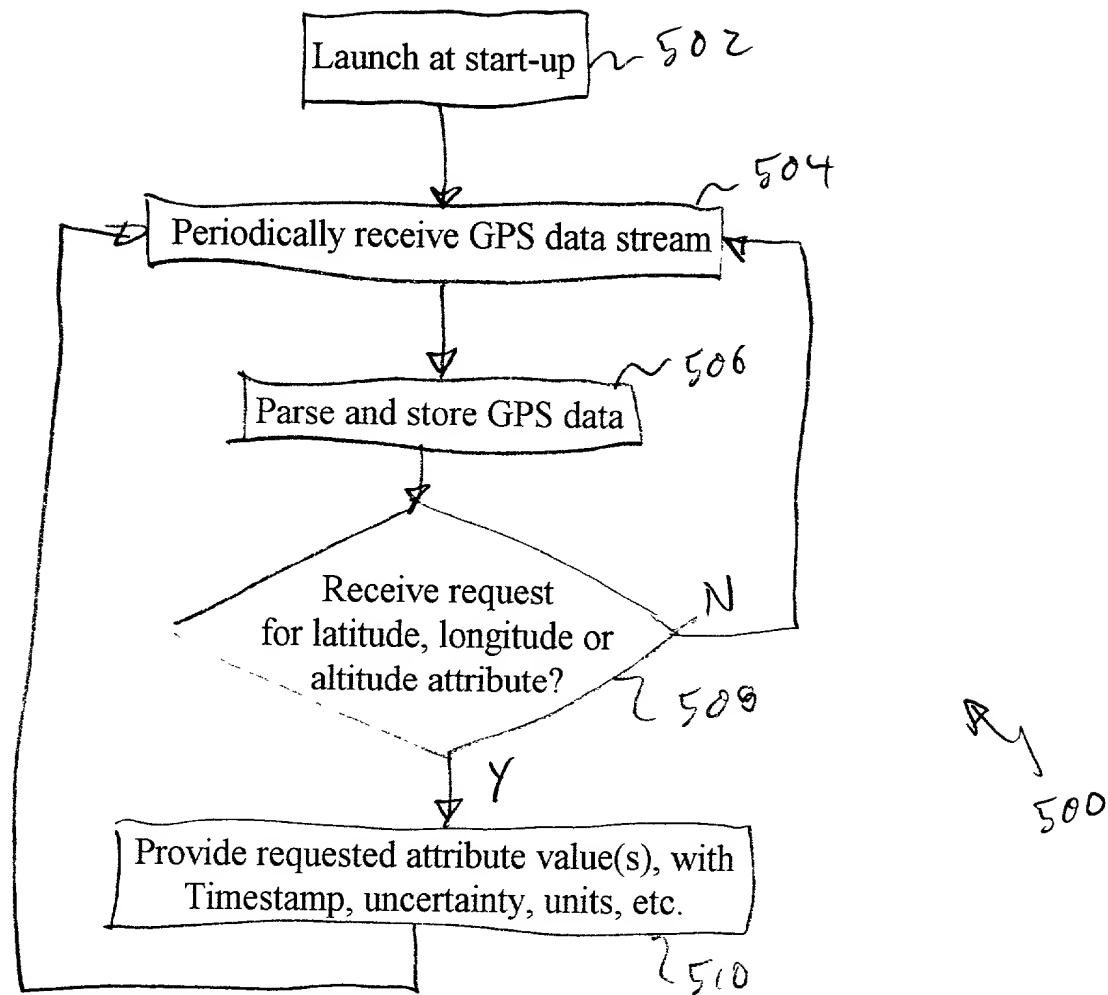


FIG 5A

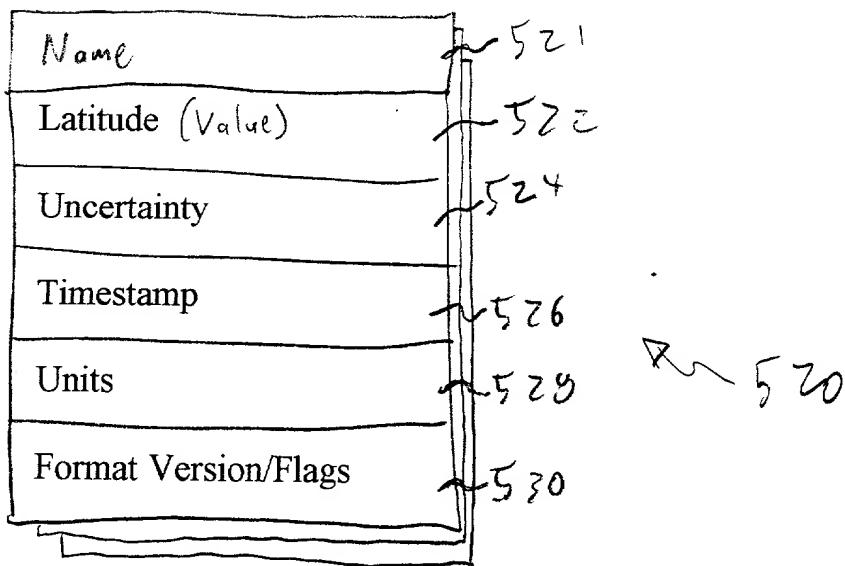


FIG 5B

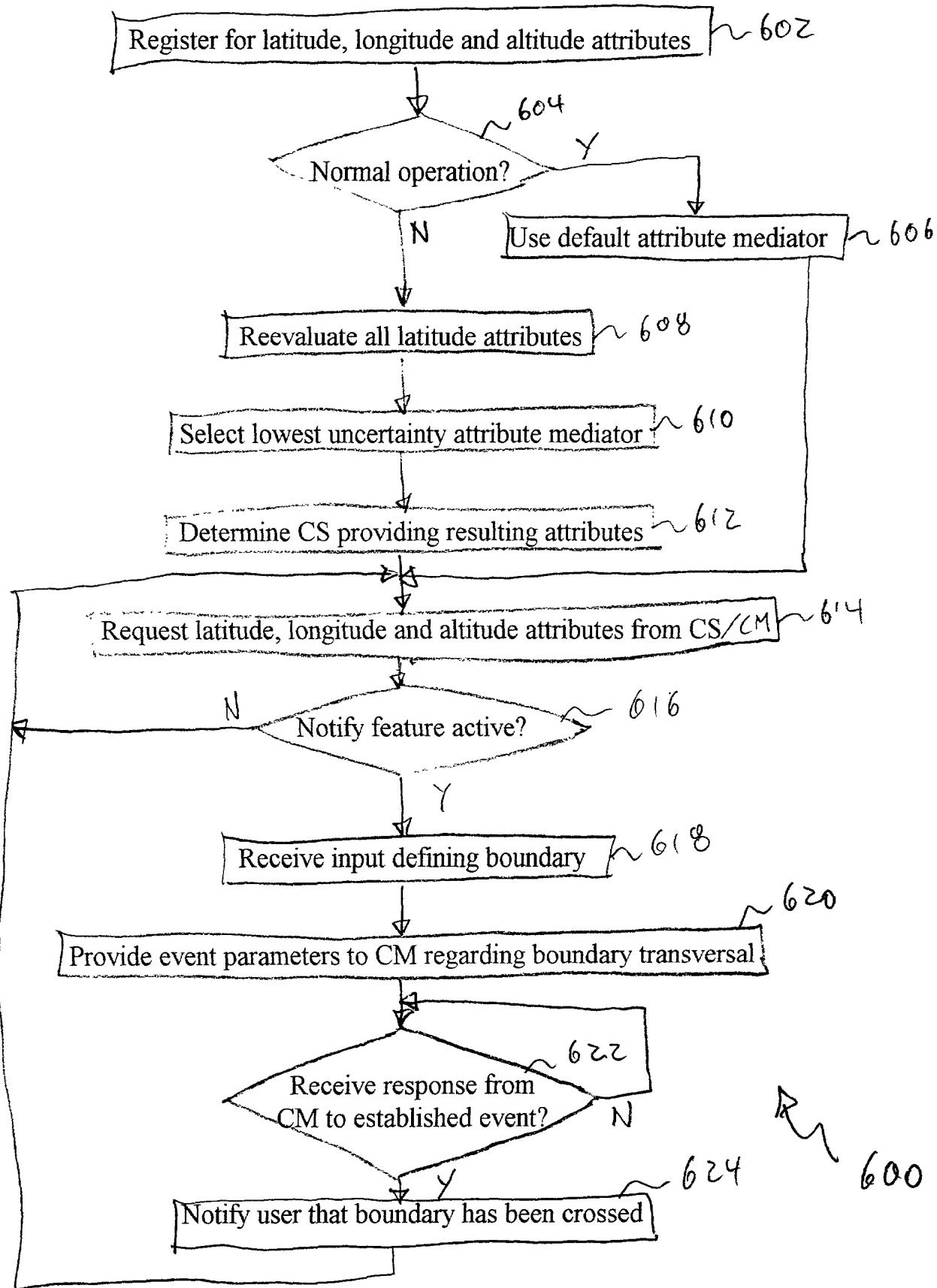


FIG 6

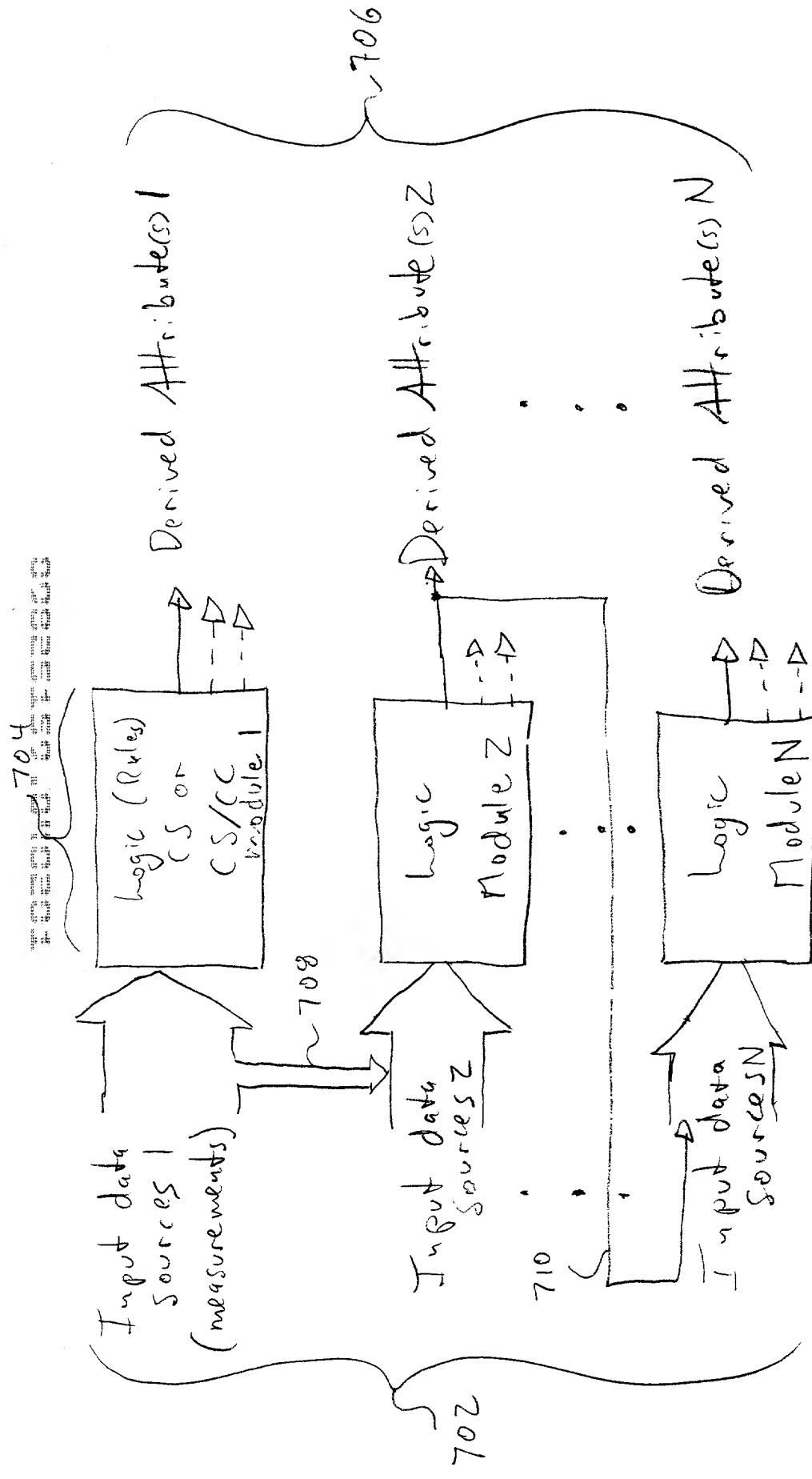


Fig 7

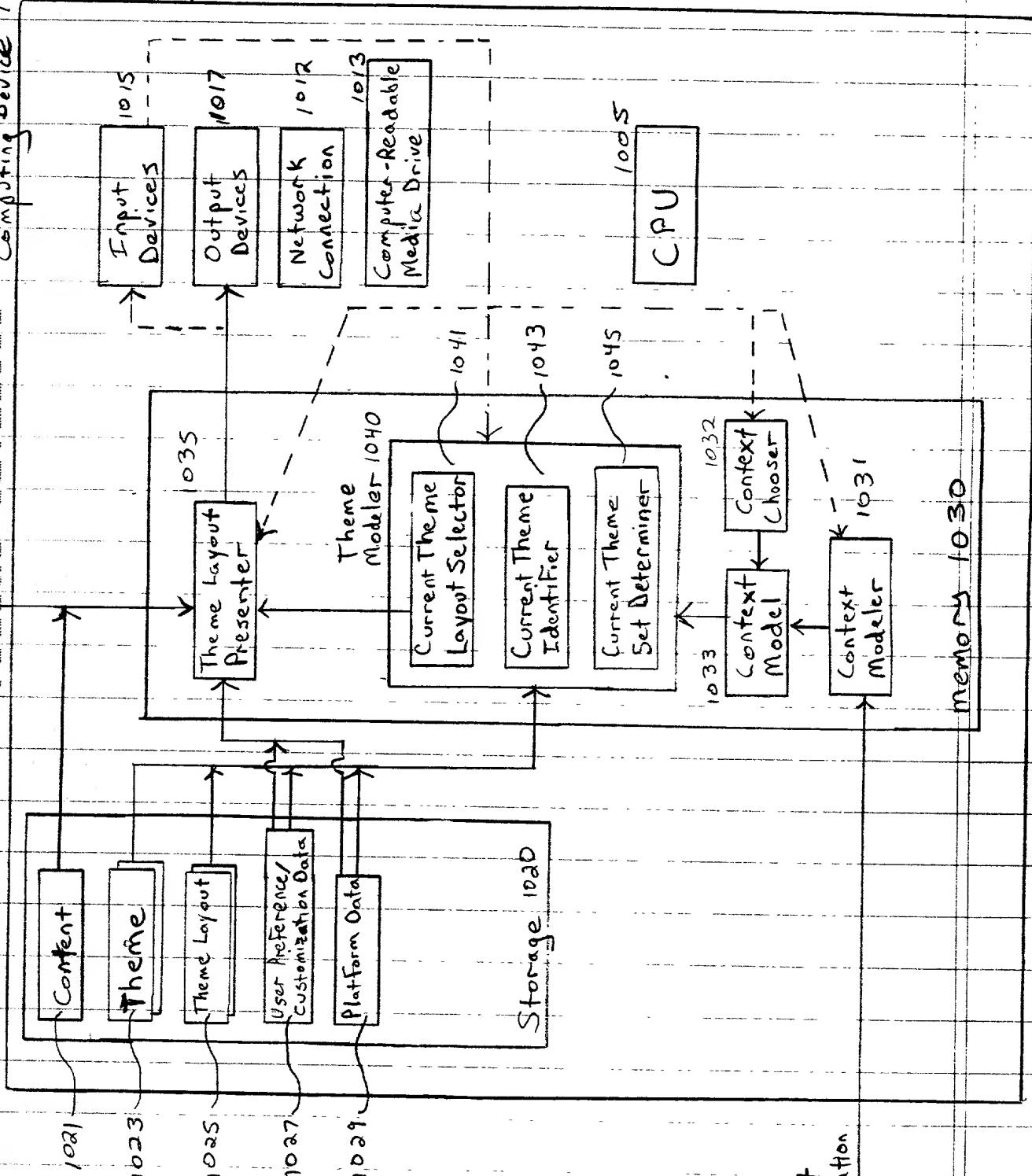
User.	Platform. (continued)
Desired_privacy_level	CPU.
Interruptibility	Load
Speed	Speed
Direction	Memory.
Acceleration	Total_capacity
Availability.	Used
Cognitive_availability	Storage.
Tactile_availability	Total_capacity
Manual_availability	Used
Visual_availability	Connectivity.
Oral_availability	Connection_status
Auditory_availability	Connection_speed
Proximity.<Item or place name>	Connection_type/device
Mood.	Connection_activity
Happiness	Power.
Sadness	Power_source
Anger	Power_level
Frustration	
Confusion	
Activity.	Environment.
Driving	People.
Eating	Nearest
Running	Number_present
Sleeping	Number_close
Talking	Local.
Typing	Time
Walking	Date
Location.	Temperature
Place_name	Pressure
Latitude	Wind_speed
Longitude	Wind_direction
Altitude	Absolute_humidity
Room	High_forecast_temperature
Floor	Low_forecast_temperature
Building	People_present
Address	Ambient_noise_level
Street	Ambient_light_level
City	Days.<previous or future>.
County	High_temperature
State	Low_temperature
Country	Precipitation_type
Postal_Code	Precipitation_amount
Destination. (same as User.Location.)	Place.<place name>. (same as Environment.Local)
Physiology.	
Pulse	Application.
Body_temperature	Mail.
Blood_pressure	Available
Respiration	New_messages_waiting
Person.<name or ID>. (same as User.)	Messages_waiting_to_be_sent
Platform.	Phone.
UI.	Available
Oral_input_device_availability	In_use
Manual_input_device_availability	On/off
Tactile_output_device_availability	Notification_mechanism
Visual_output_device_availability	Call_incoming
Auditory_output_device_availability	Caller_ID
	Sound_recorder.
	Available
	Recording

User Setting	Computer
Mental Context	Power
Meaning	Configuration
Cognition	User Input Systems
Divided User Attention	Hand/Haptic
Task Switching	Keyboard/Keystrokes
Background Awareness	Voice/Audio
Solitude	Eye Tracking
Privacy	Cursors
Desired Privacy	Axis
Perceived Privacy	Resolution
Social Context	Selection
Affect	Invocation
Physical Situation	Accelerators
Body	Output Systems
Biometrics	Visual
Posture	Resolution
Motion	Audio
Physical Encumbrment	Public/Private
Senses	Haptic
Eyes	External Resources
Ears	I/O devices
Tactile	Connectivity
Hands	Data
Nose	Quantity/State
Tongue	Urgency/Importance
Workload demands/effects	Use of Prominence
Interaction with computer devices	Modality
Interaction with people	Sensitivity/Purpose
Physical Health	Privacy Issues
Environment	Use of Association
Time/Space	Use of Safety
Objects	Source/Ownership
Persons	Types
Audience/Privacy Availability	User generated
Scope of Disclosure	Other computers or people
Hardware affinity for privacy	Sensor
Privacy Indicator for User	PC State
Privacy Indicator for Public	Use of Association
Watching Indicator	
Being Observed Indicator	
Ambient Interference	
Visual	
Audio	
Tactile	

Fig 9

Thematic Response Device 1000

Various Content 1070



Context Information
1060

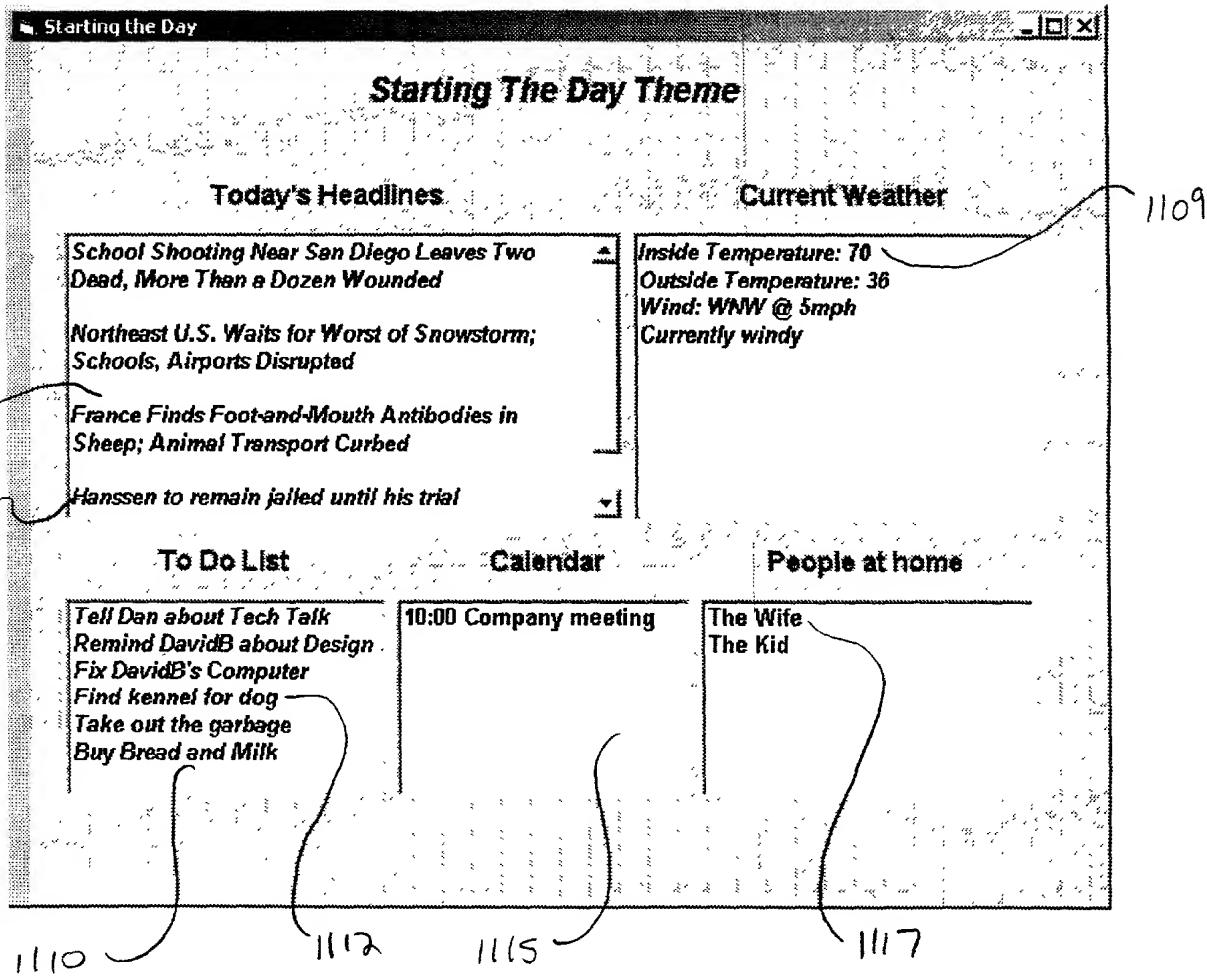
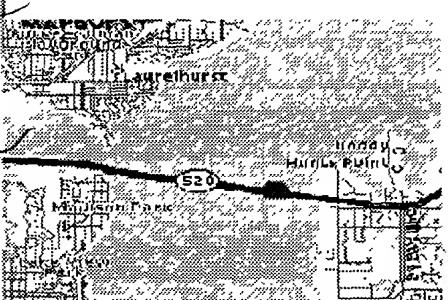


Fig. 11 A

Driving to Work

Driving To Work Theme

Tengis
1848 Westlake Ave N
Seattle, WA
47.636 N -122.34 W



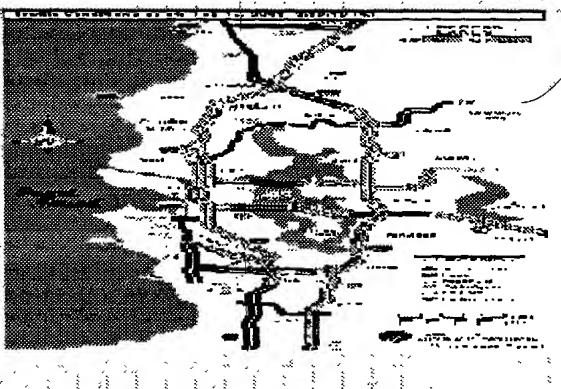
First Meeting for the Day
10:00 Company Meeting

People to Call

John T (425)444-5555 LOI
Mark Smith (206)936-6214 SDE Offer

Directions

1. Start our driving South on EVERGREEN POINT RD.
2. Turn LEFT onto NW 24TH ST.
3. Turn LEFT onto 84TH AVE NE.
4. Take the WA-520 WEST ramp towards SEA TAC AIRPORT.
5. Merge onto WA-520 W.
6. Take the I-5 NORTH exit on the left towards CITY OF SEATTLE.
7. Merge onto I-5 S.
8. Take the WA-518 exit, exit number 154S, towards SEA-TAC AIRPORT.
9. Keep LEFT at the foot of the ramp.
10. Merge onto WA-518 W.
11. Take the WA-59 exit towards SEA-TAC AIRPORT.
12. Keep LEFT at the foot of the ramp.
13. Merge onto IN-ENTRY DR.
14. Stay straight to go onto TICKETING/CHECK IN.
15. Stay straight to go onto TICKETING/CHECK IN.



1127

Fig. 11B

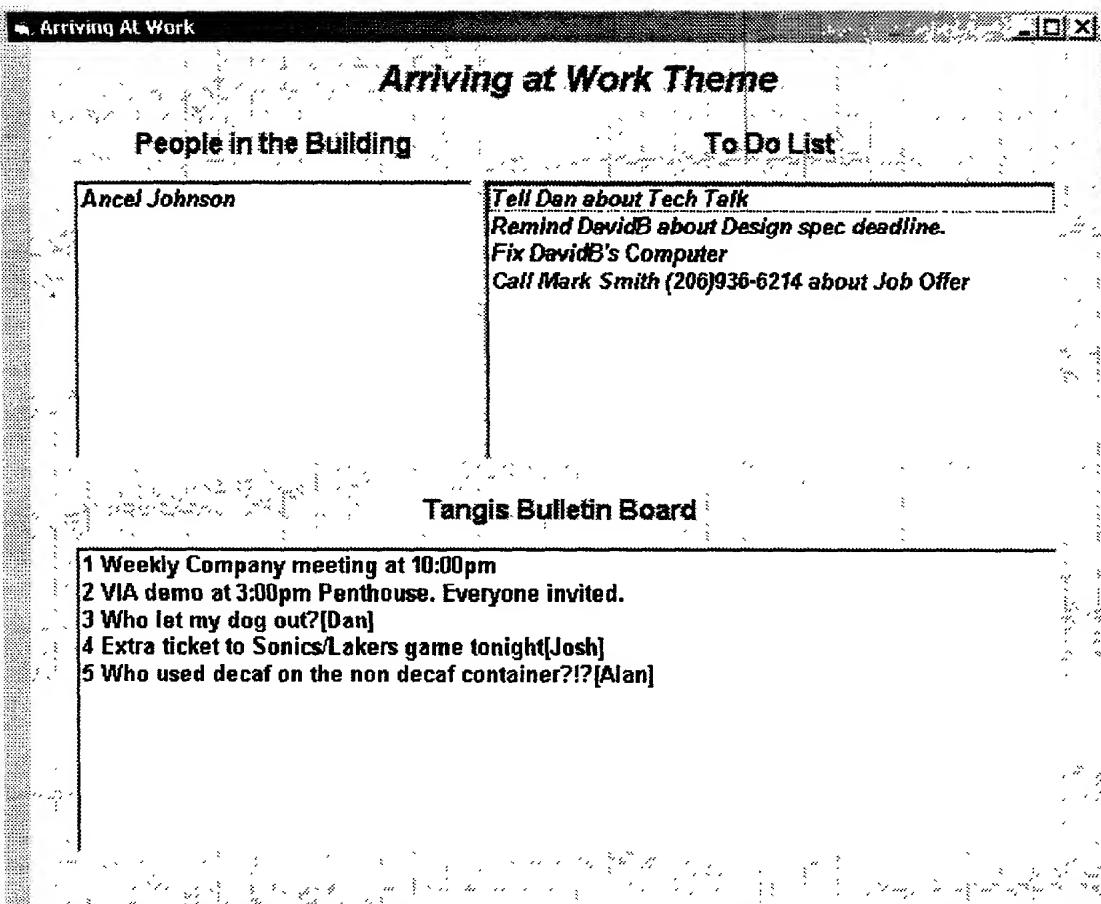


Fig. 11C

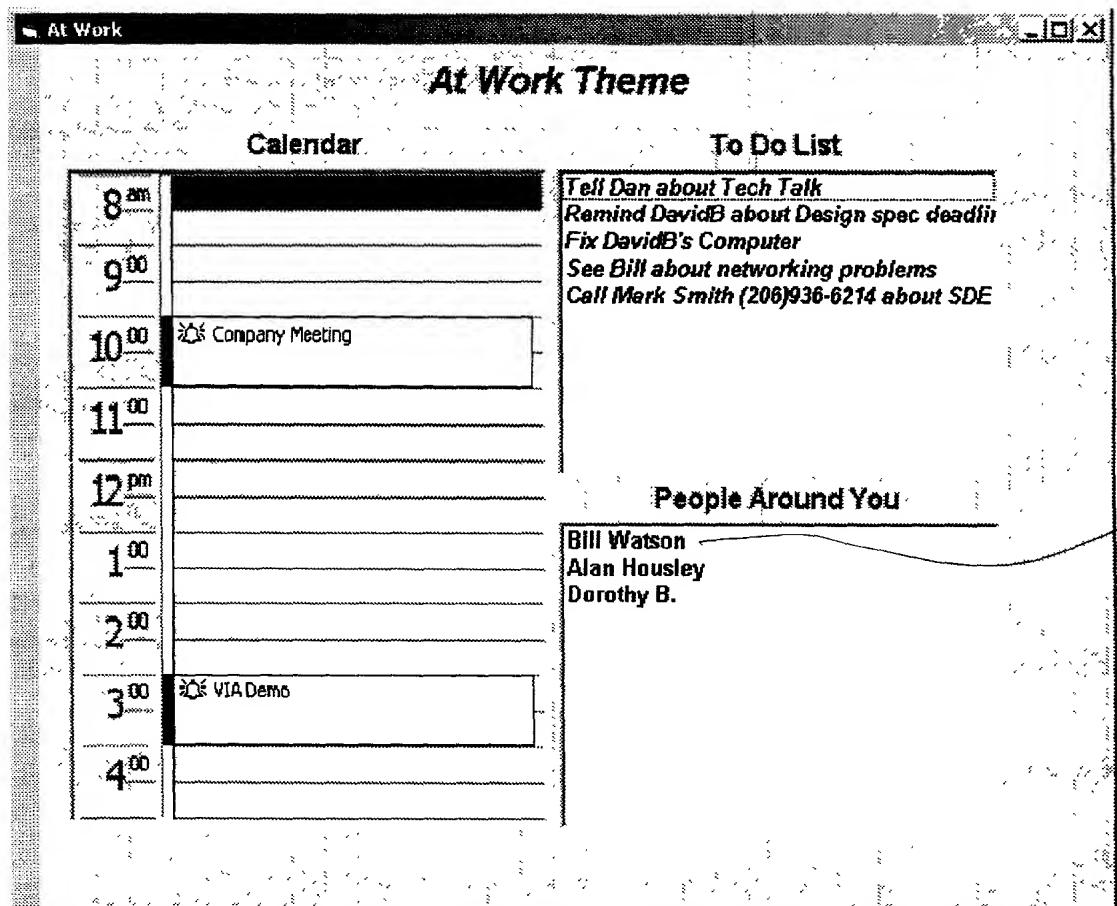


Fig. 11D

135

Meet with Bill

Bill Watson Theme

Bill Watson

Recognize

Contact Information

Bill Watson
Married with Children

Reminders

See Bill about networking problems
Tell joke about Barbi.

Fig. 11E

Company Meeting

Meeting Theme	
Things to bring up	People Present
<p>Tell group what you did last week</p> <p>Tell group what you plan to do this week</p> <p>Tell group about your new invention.</p> <p>Tell group about your upcoming skiing trip.</p> <p>Kudos for Stan and Dorothy for finishing report</p>	<p>Aaron Graves</p> <p>Alan Housley</p> <p>Ancel Johnson</p> <p>Bill Watson</p> <p>Brian Rose</p> <p>Cesar Alvarez</p> <p>Dan Newell</p> <p>David Jukes</p> <p>Dorothy B.</p> <p>Jaquie T.</p> <p>Jeff Fried</p> <p>Jim Robarts</p> <p>Johnson A.</p> <p>Josh Freedman</p> <p>Kanisha Patel</p> <p>Ken Abbott</p> <p>Lisa Davis</p> <p>Molly Fitch</p> <p>Scott Price</p> <p>Stan Emert</p>
<p>Notes</p> <p>Finished coding Turing Machine on Monday. Did bug bash on Tuesday. Survived an earthquake on Wednesday. Worked on CTK demo rest of last week Continuing work on CTK demo rest of this week</p>	

1137

Fig. 11F

Meet with Bill

Dan Newell Theme

Dan Newell



Recognize

Contact Information

Dan Newell
*Has met The Man
Married with 1 year old son*

Reminders

Ask him about his 90 day plan
Tell joke about Barbi.
Ask Dan about his watch.
Tell Dan about Tech Talk.
Invite Dan to Lunch.
He owes you \$10.00

Fig. 11G

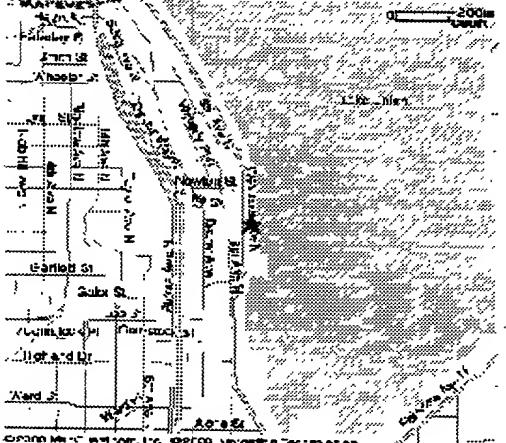
Lunch with Dan

Going to Lunch Theme

Restaurant in the Area

Kwanjai Thai
Thai Restaurant
1800 Westlake Ave

Previous Next



Tangis Employee Comments

Great Thai food. Highly Recommended. -Josh
Pretty good thai food. Try out their panang. -Johnson

Fig. 11H

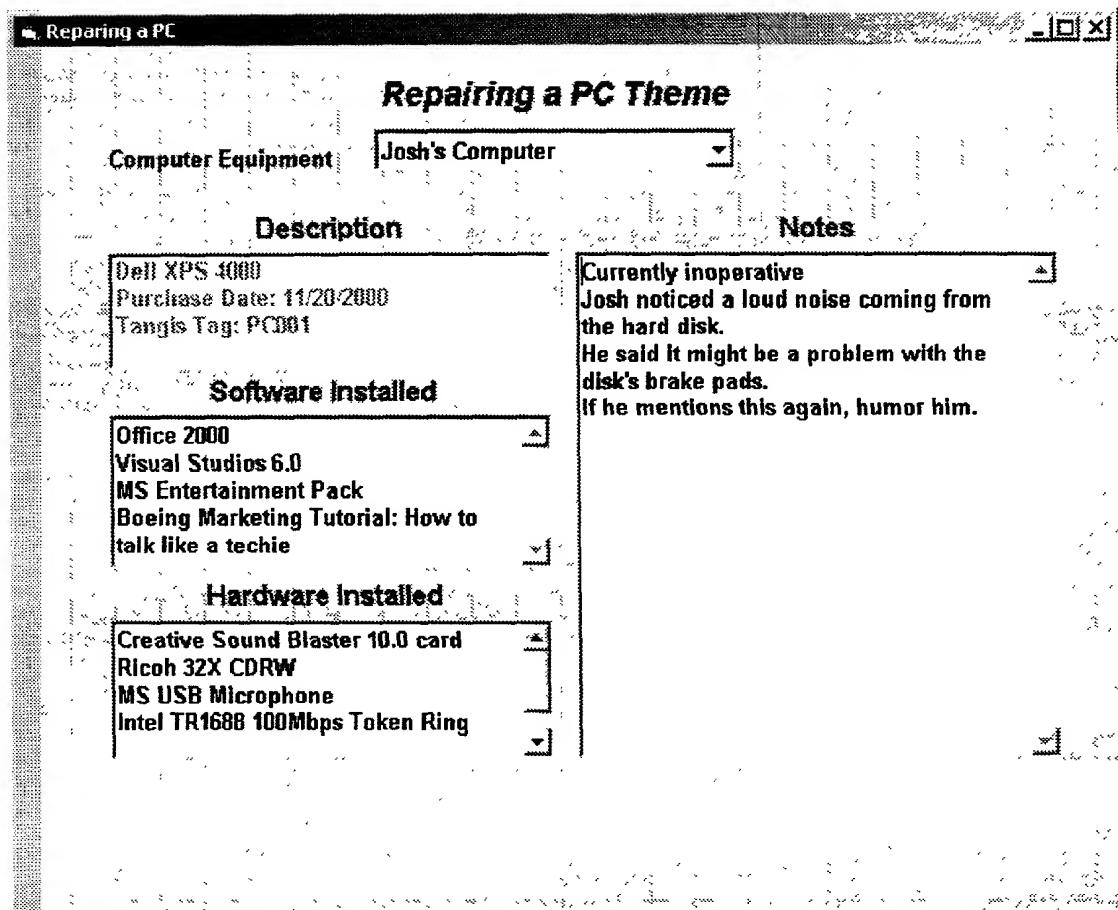


Fig. 111

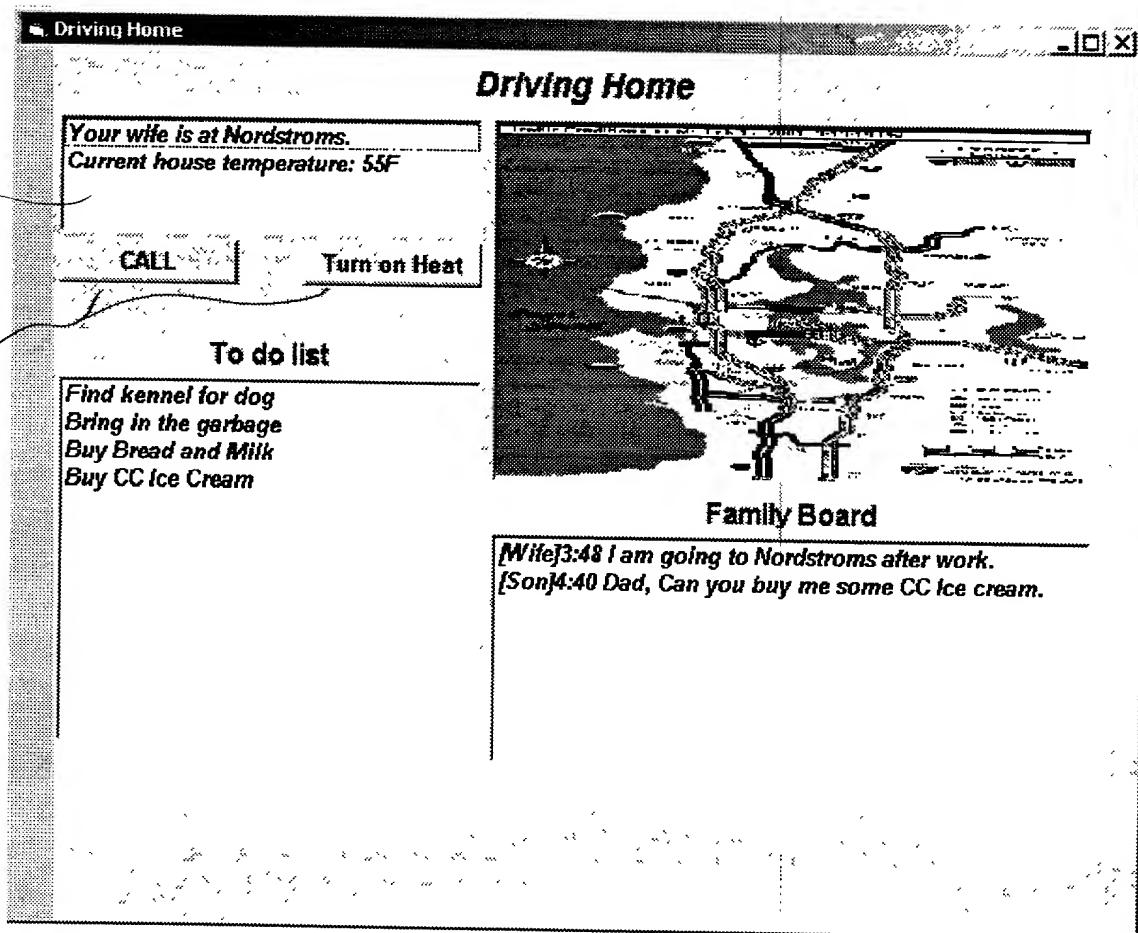


Fig. 115

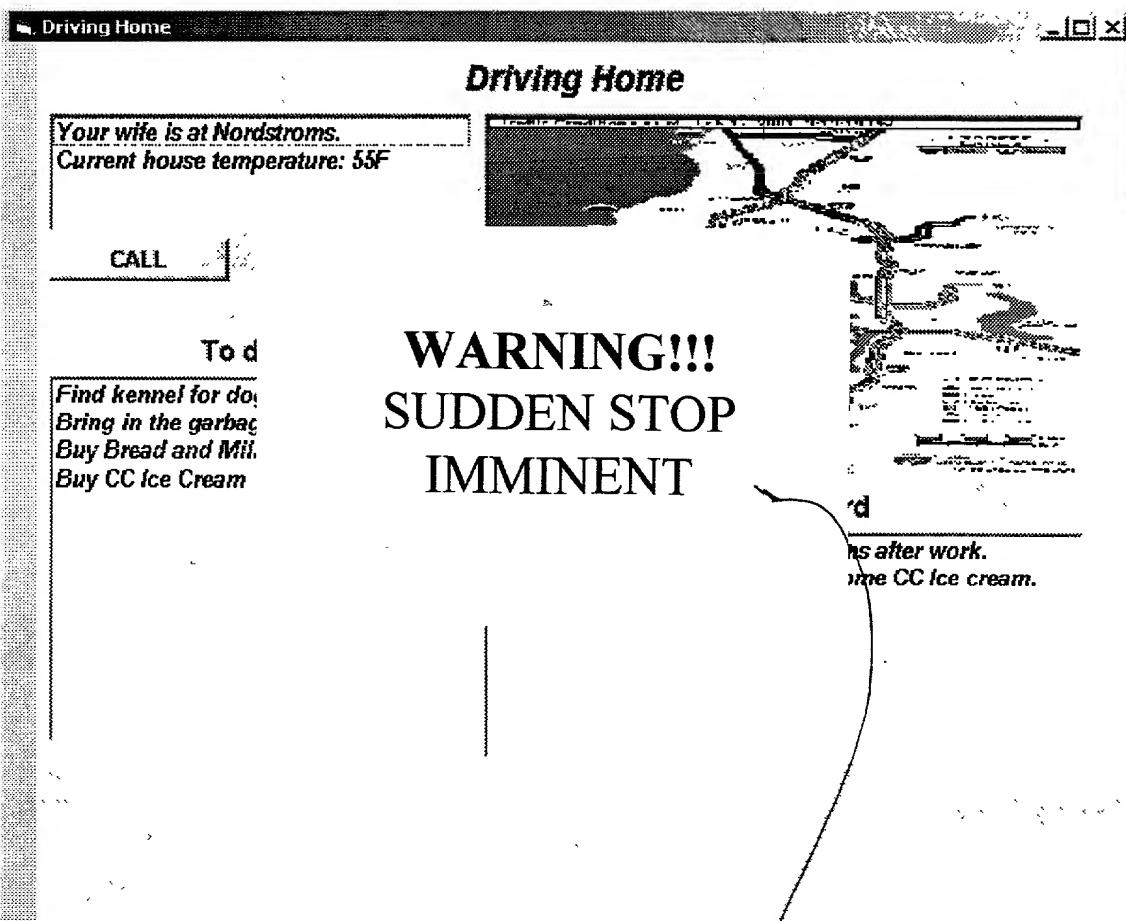


Fig. 11K

1190

Arriving Home	
Arriving Home	
<p>To do list</p> <p><i>Find kennel for dog. Bring in the garbage. Help Junior with Homework.</i></p>	<p>What's on TV</p> <p><i>07:00 Komo TV Local News (4) 07:30 Wall Street Week (9) 08:00 Survivor III (7) 09:00 X-Files (13) 10:00 Big Apple (7)</i></p>
<p>Family Board</p> <p><i>[Spouse]3:48 I am going to Nordstroms after work. [Son]4:40 Dad, Can you buy me some CC ice cream. [Spouse]5:15 I'll be home at around 6:30. Get dinner. [You]5:15 Sure Son. [You]6:00 I'm home.</i></p>	<p>People At Home</p> <p><i>The Wife The Kid</i></p>

Fig. 11L

Example Current Theme Selection

Select A New Current Theme

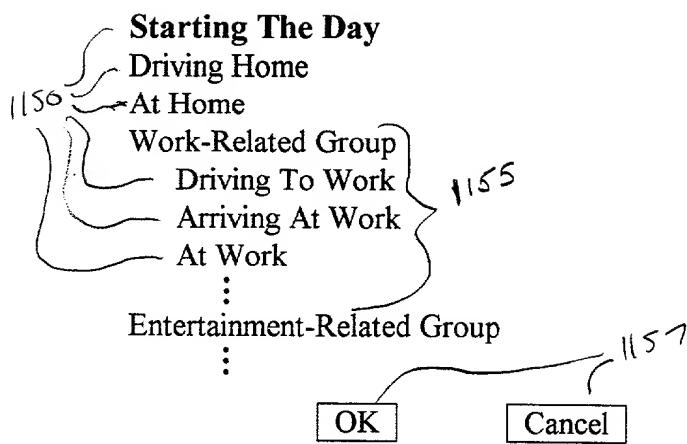


Figure 11M

Example Current Theme Set Modification

Current Theme Set

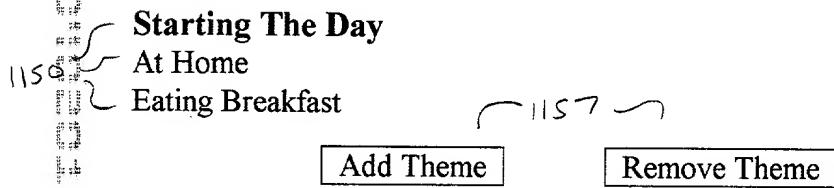


Figure 11N

Example Current Theme Layout Selection

Select A New Current Theme Layout

Starting The Day theme

Starting The Day – default layout

Starting The Day – vacation

Starting The Day – responsible for dropping off kids

OK

Cancel

1157

Figure 11O

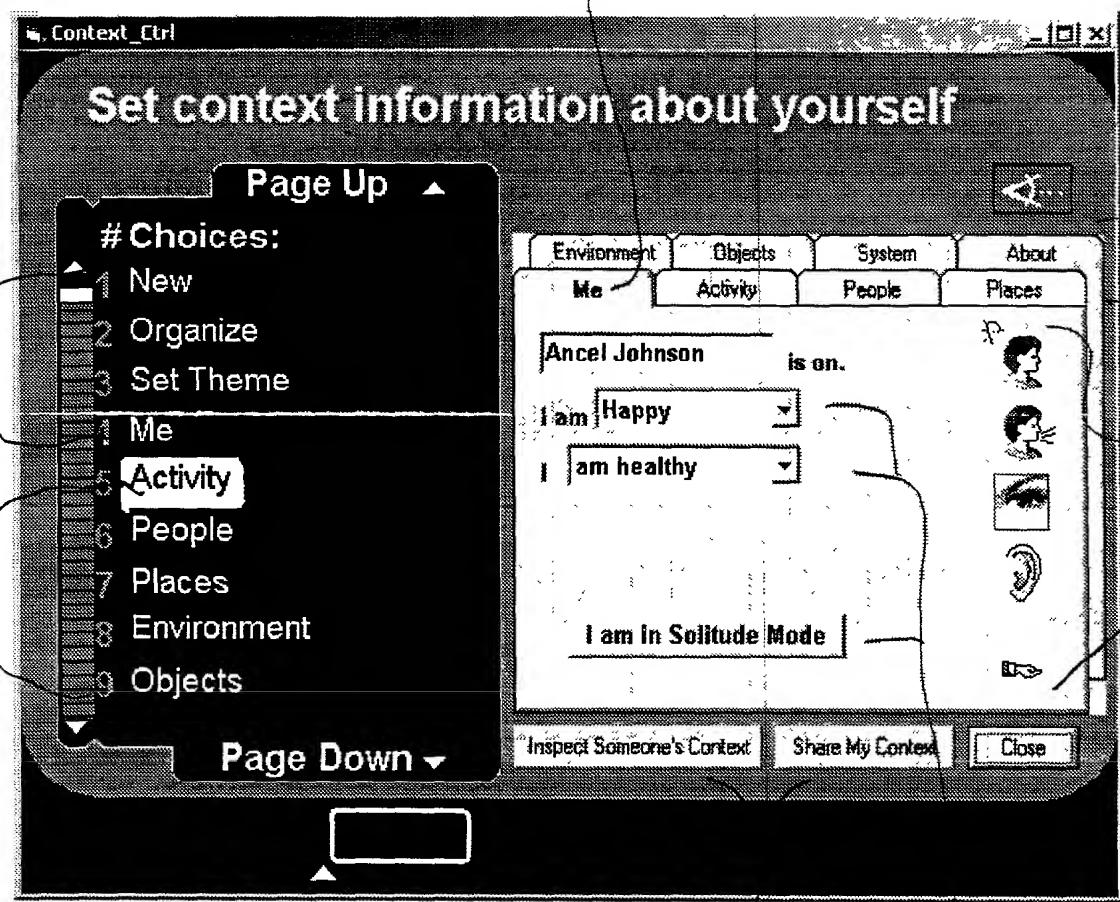


Fig. 12A

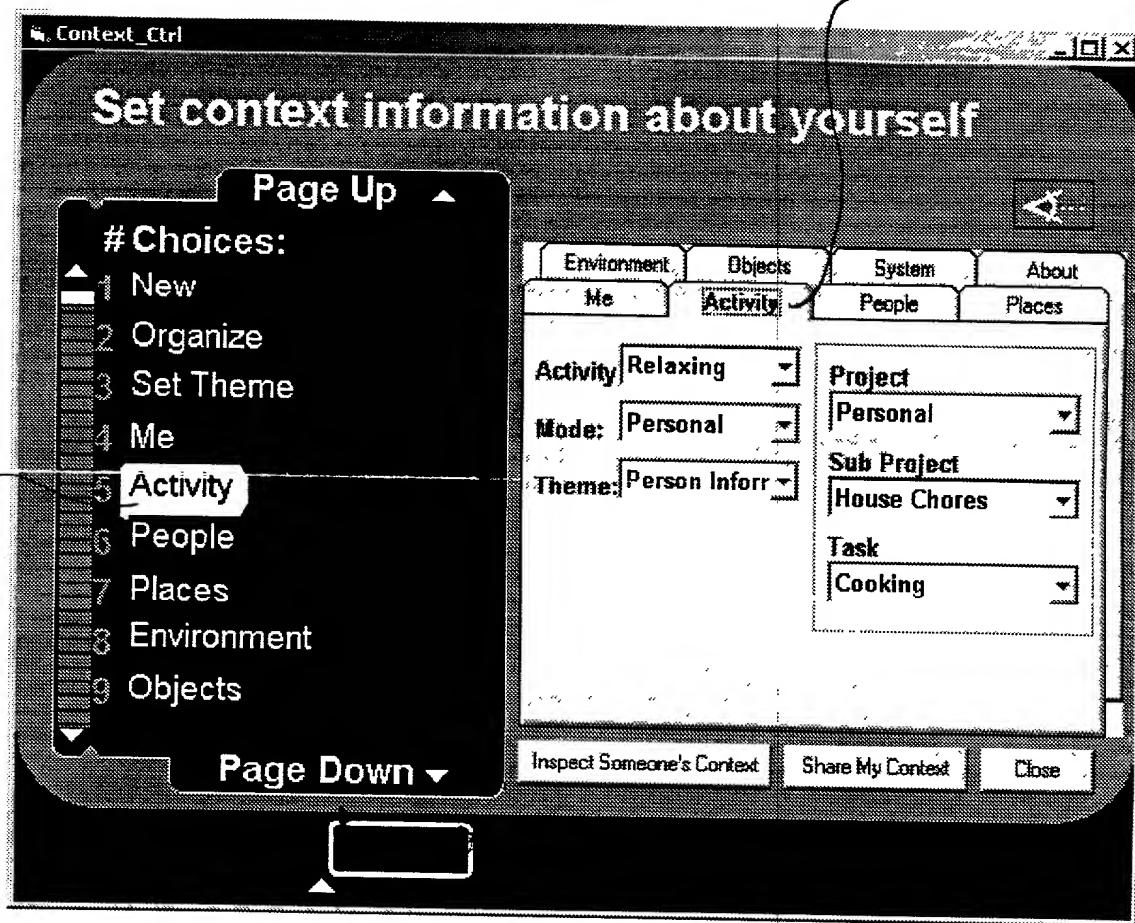


Fig. 12 B

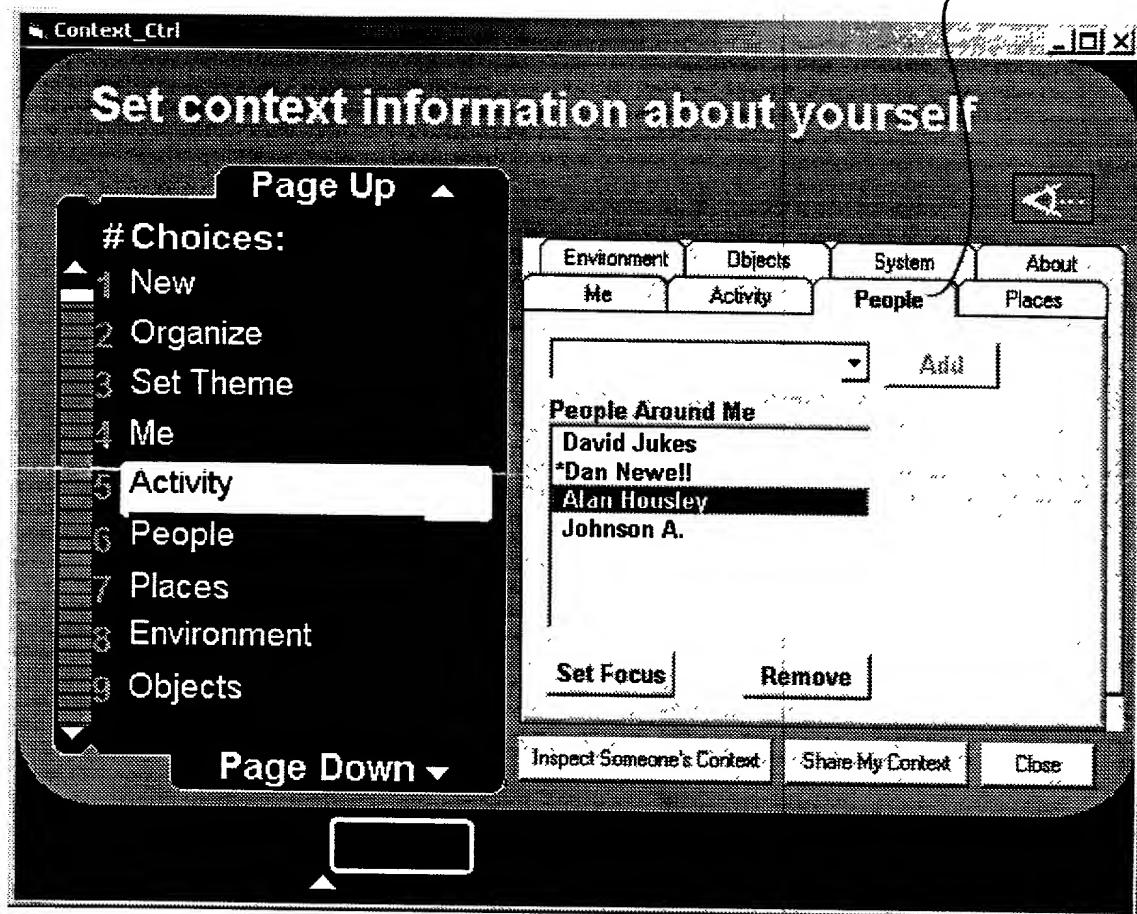


Fig. 12 C

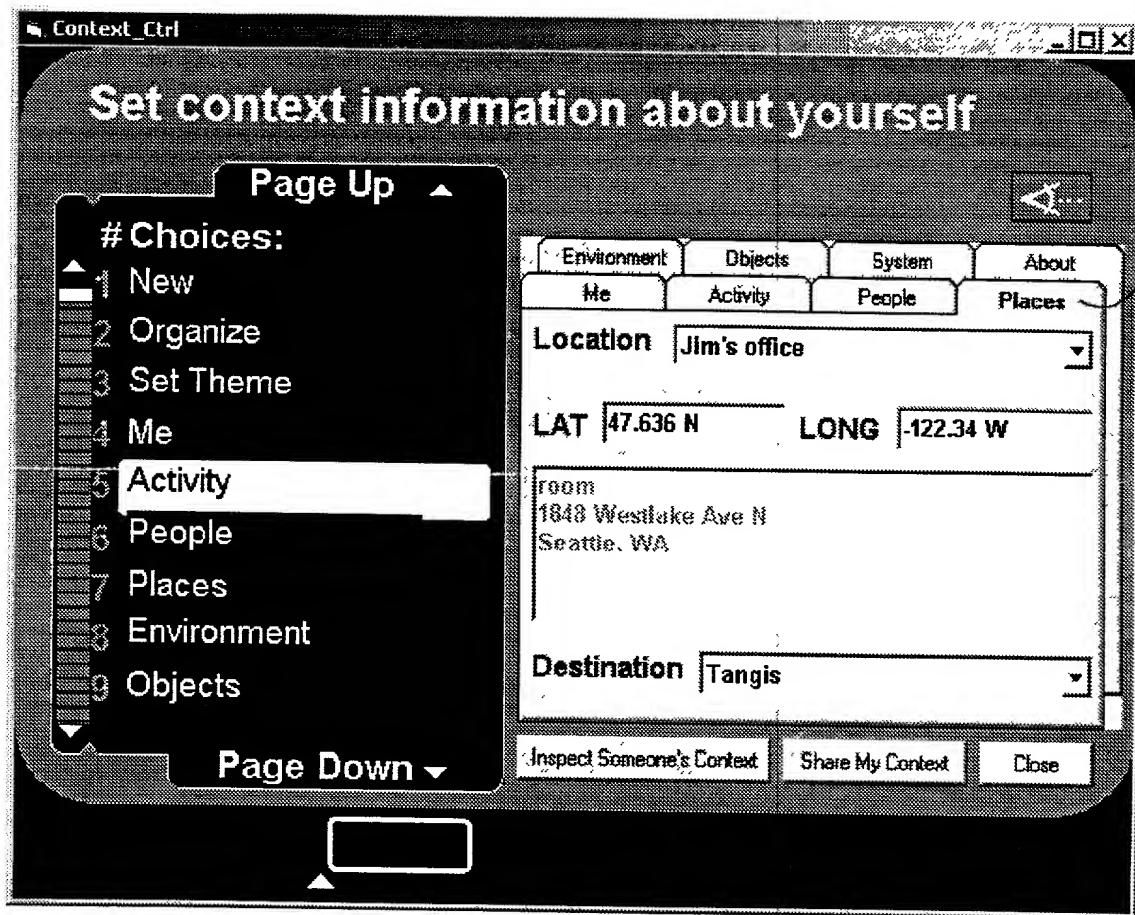


Fig. 12D

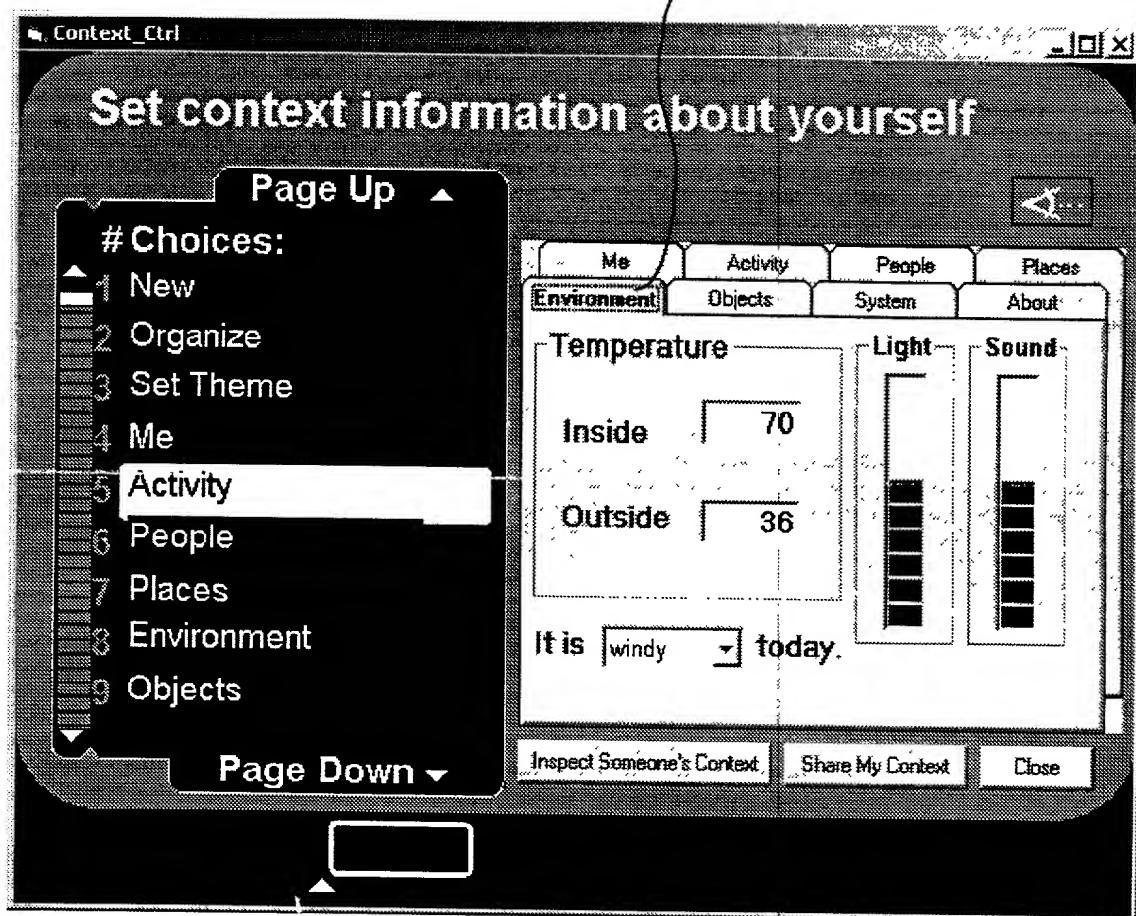


Fig. 12E

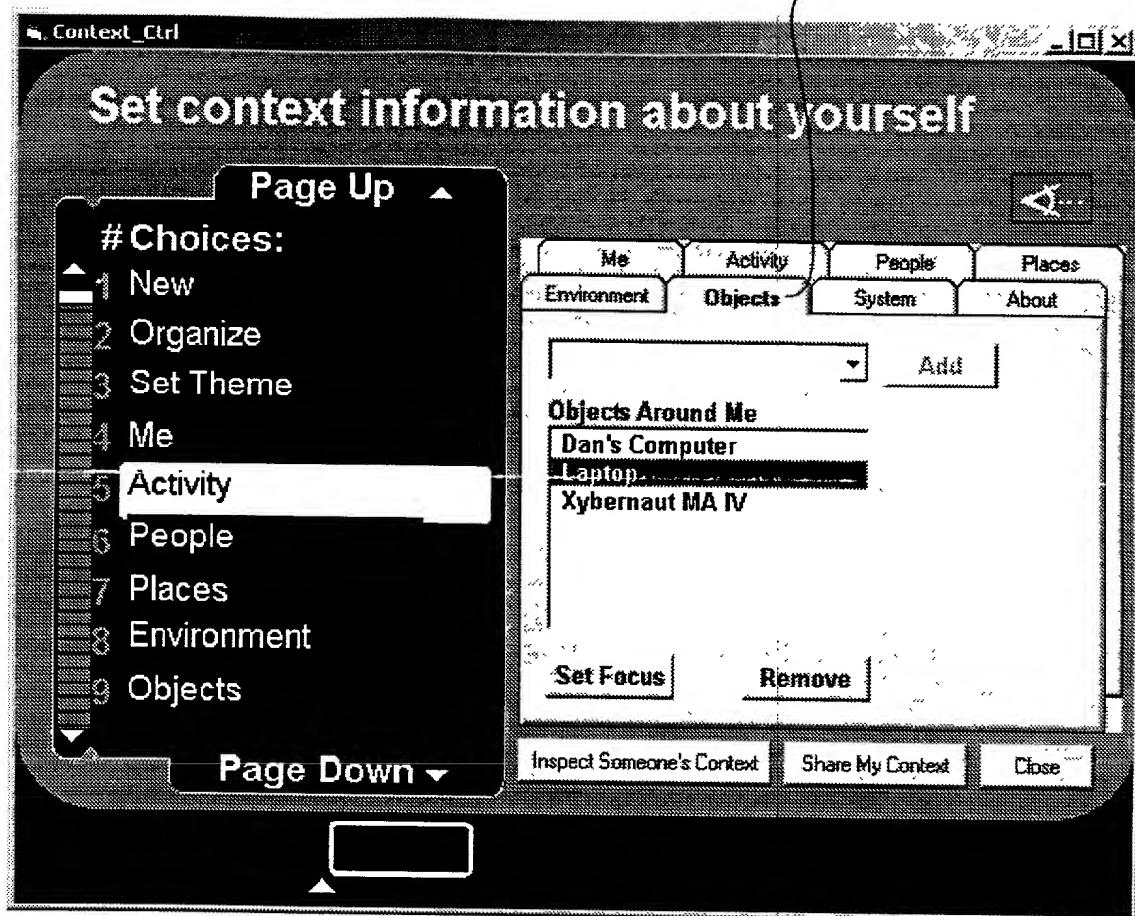


Fig. 12F

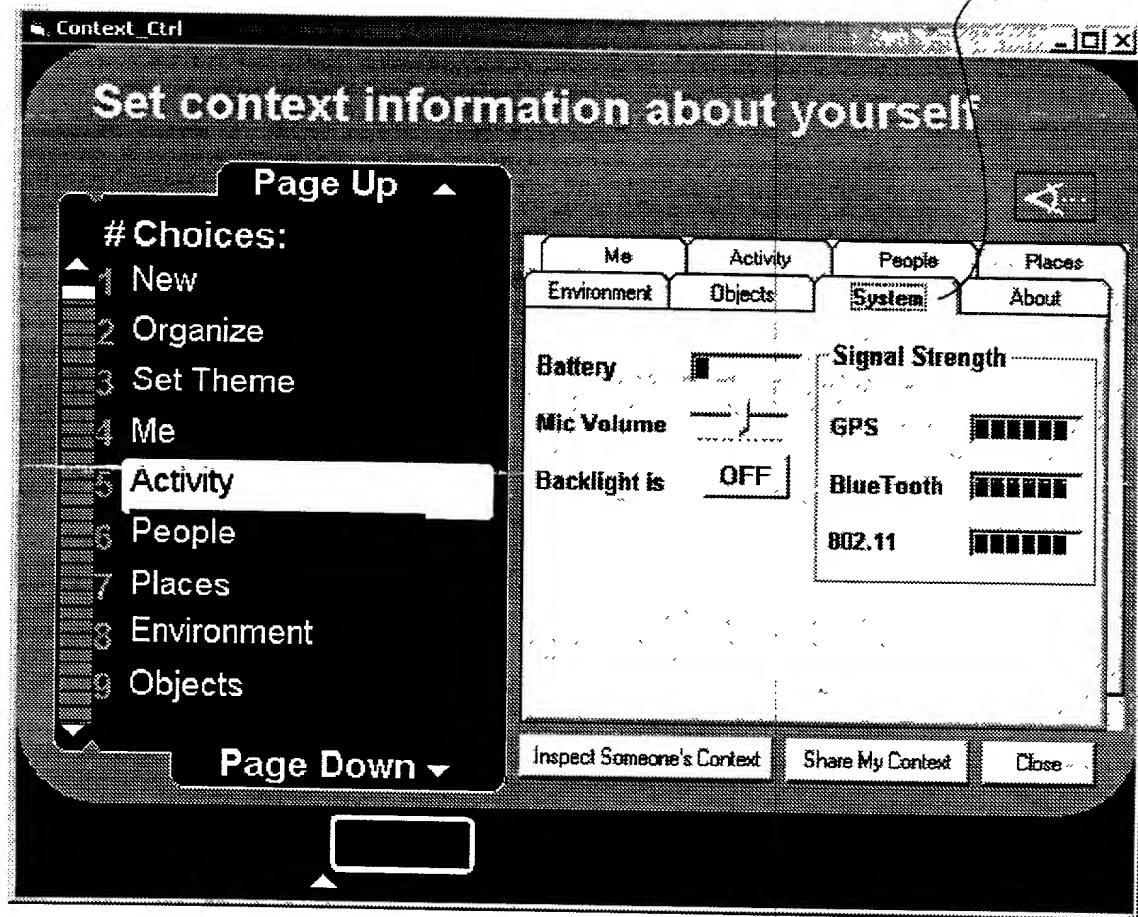


Fig. 12G

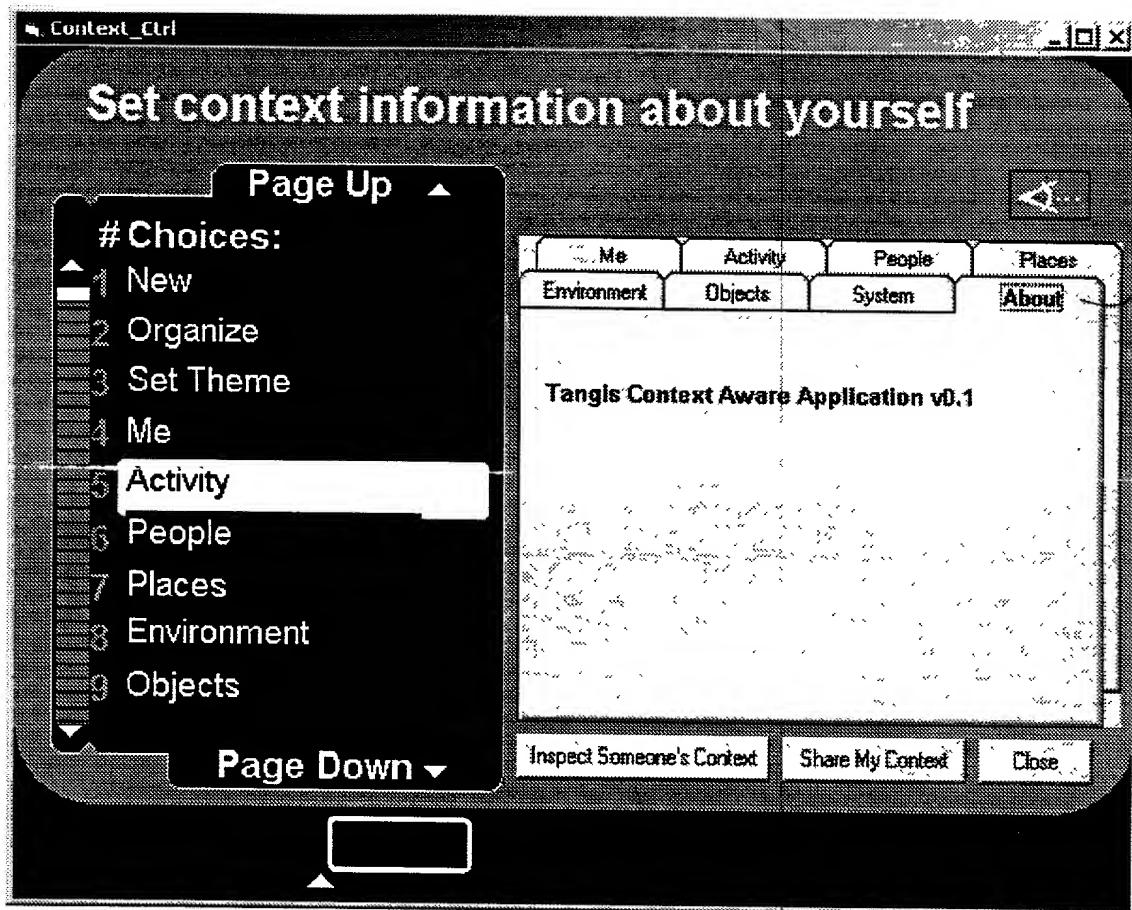


Fig. 12 H

Example Theme Data Structure

1302

1304

1300

1305	Name	Driving To Work
1310	Description	Intent Is To Organize Both Driving Info & Info About Work Arrival
1315	Security	Default: ****; Self: *****; ...
1320	Permission	Access: Self+Family+Friends+Source; Modification: Self; Copy: None; ...
1325	Privacy	Private
1330	Priority	Medium
1335	Group-ID	23
1340	Time-Active	Mon-Fri, 06:00-11:00
1345	Source	BCD Motor Company
1350	Theme-Content	"BCD Motor logo.gif"
1355	New-Attributes	DTW-BCD.driving-direction: (source = "BCD-DTW CS"); ...
1360	Theme-Matching	user.activity.driving = true (required); environment.local.time = 08:00-09:00 (optional); DTW-BCD.driving-direction = NOT "South" (required); ...
1365	Theme-Logic	IF <user.activity.driving> AND user.location.latitude > recent.user.location.latitude THEN DTW-BCD.driving-direction = "North"; IF DTW-BCD.driving-direction = "East" THEN Alert("You're Lost Again!!"); SET user.location[Access] = Family & Co-workers; ...
1370	Attribute-Set	<link>; ... <link> :

Attribute 1

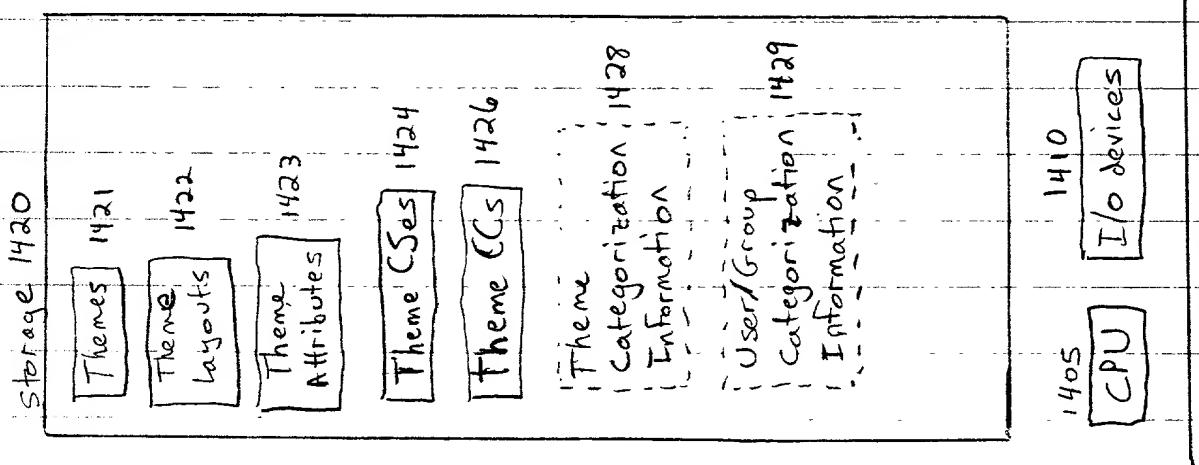
Name	user.activity.driving
Value	True
Uncertainty	High
Timestamp	07:32 03/24/XX
Units	boolean
Access	Family
...	

Attribute N

Name	DTW-BCD.driving-direction
Value	West
Uncertainty	None
Timestamp	08:13 03/24/XX
Units	North, North by Northeast, ...
Access	Self
...	

Figure 13

Theme Server computing device 1400



Theme User computing device 1450

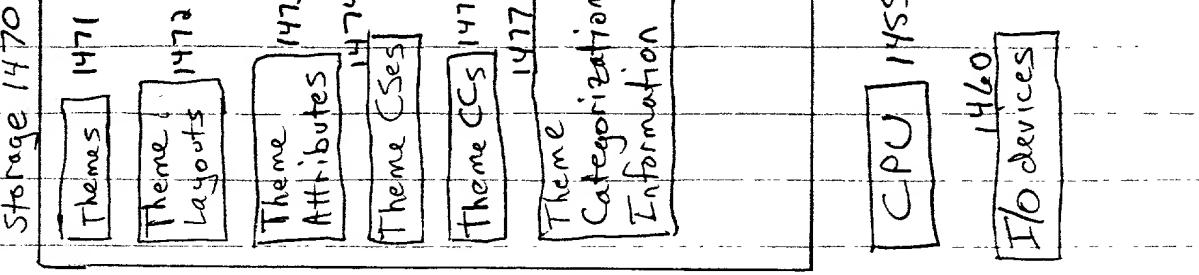
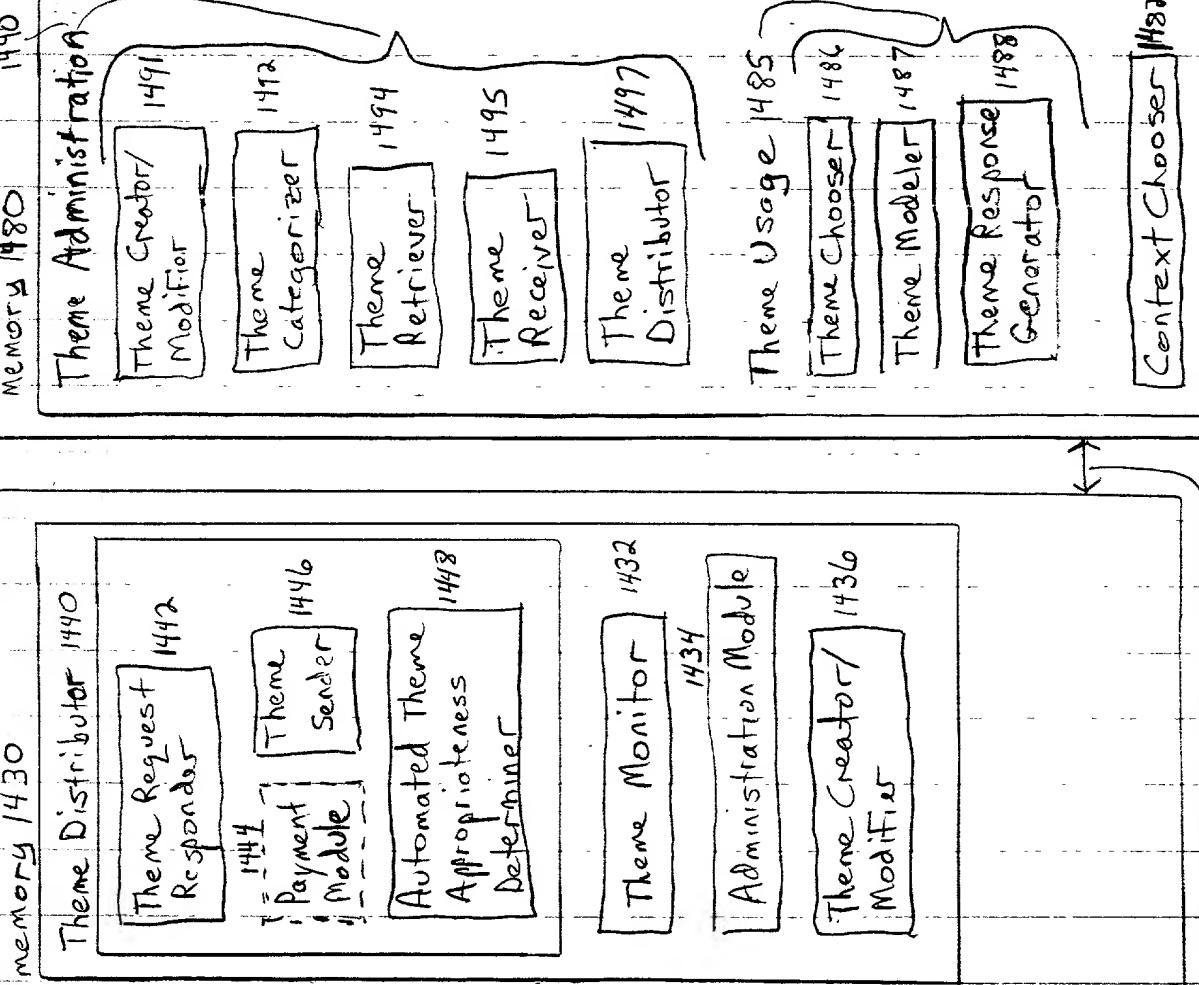


Fig. 14

network 1465

Fig. 15

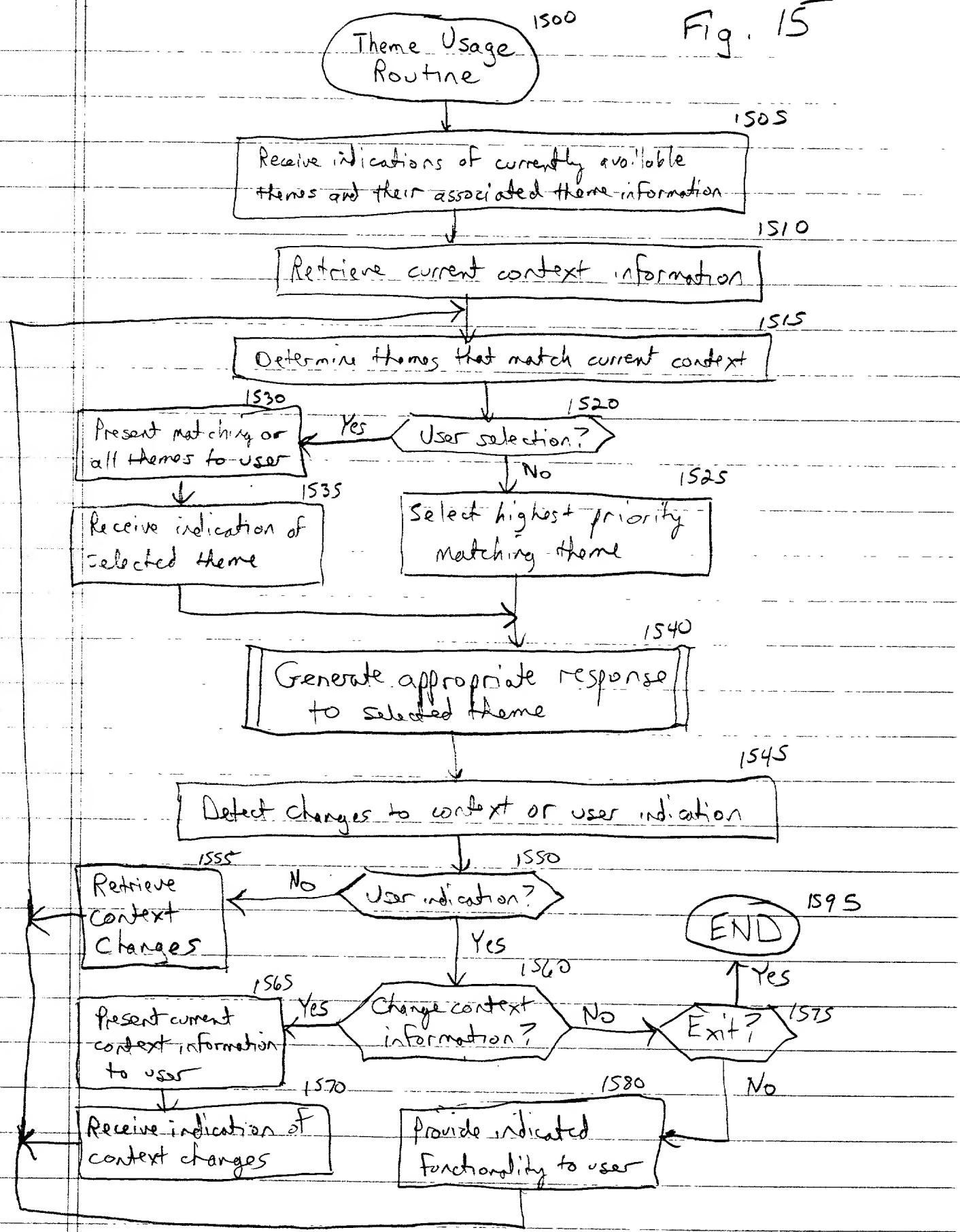


Fig. 16

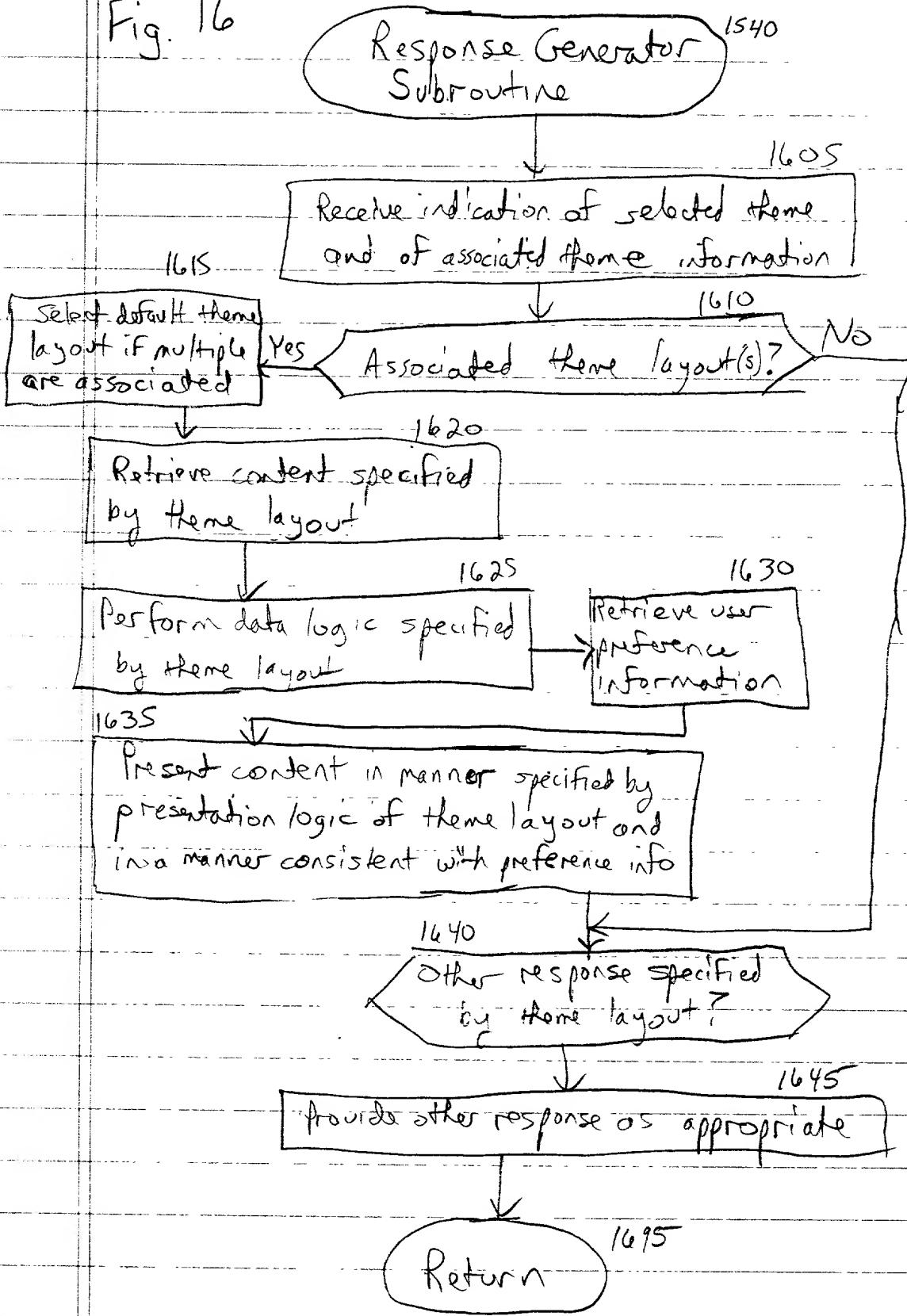


Fig. 17

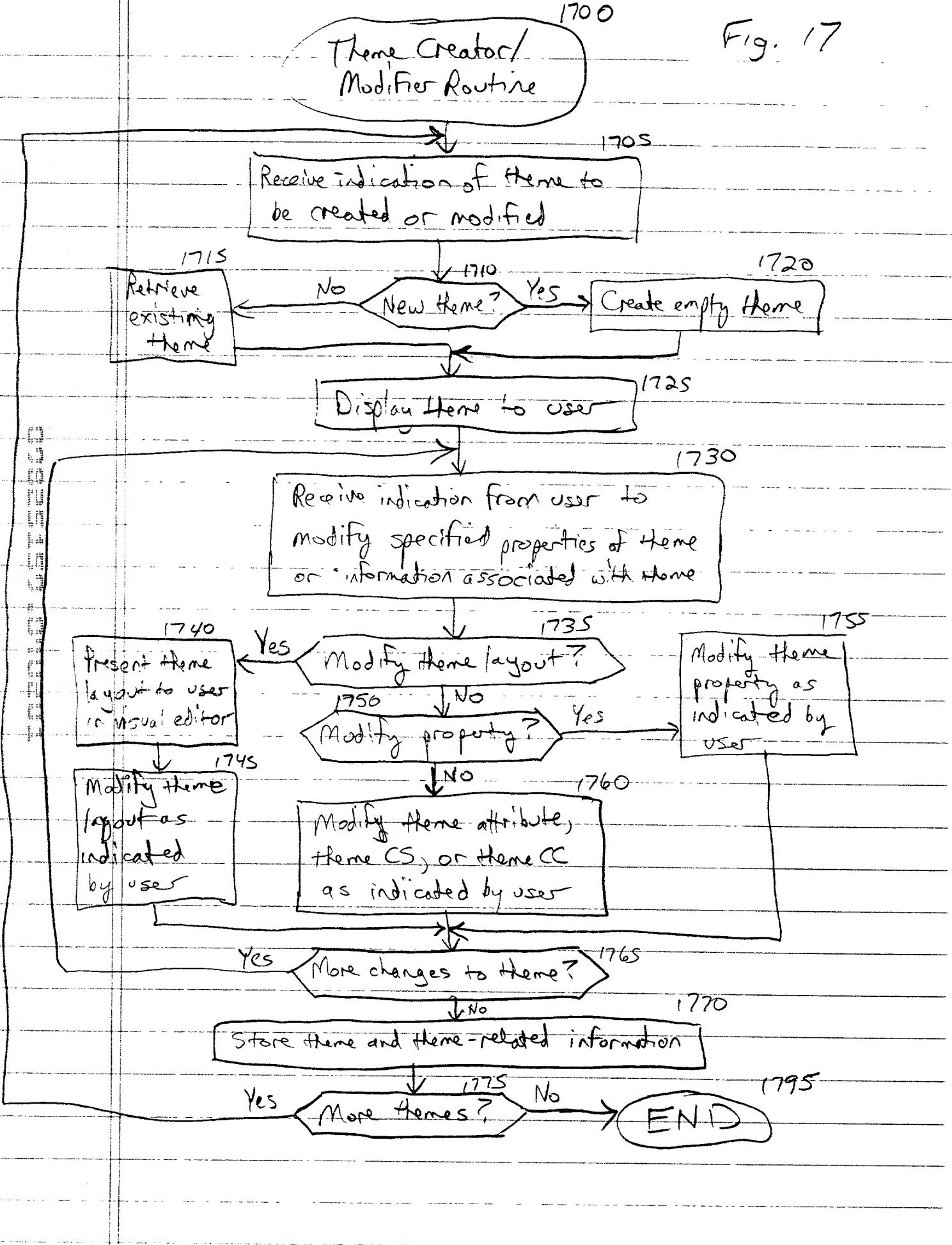


Fig. 18

1800

Theme Distributor
Routine

1805

Receive indications of available themes

1810

Retrieve indications of appropriate users
for the available themes

1815

Receive request for item(s) or indication
of accessible user

1820

1835
Retrieve information
about user from
database or user's
computing device

Request?

Yes

1825
Determine if user has
provided appropriate
access information

1830
Appropriate access?

1840
Determine themes that
are appropriate for user

1845
Determine if any needed payment
information has been provided

1850
Payment provided?

Yes

1855

1860
Gather theme-related information
associated with requested or determined
themes, including the themes

1865
Send gathered information to
requesting or indicated user

Yes

1865
Continue?

No

1895
END

Theme Receiver Routine

1900

Fig. 19



1905

1915

Request?

1910

Receive indication
of sent theme

1940

Yes

Attempt to determine
theme server that
can provide
requested theme

1920

Theme server found?

1925

Receive appropriate access
information for theme and
theme server, either from
user or from storage

1930

Receive indication of payment
mechanism if needed, either
from user or from storage

1935

Send request for theme to theme
server, including any access
information and payment information

1965

Store received information,
and load for use if
immediately useful

Continue?

1970

No

1995

END

Payment information
needed?

1945

Send payment information

1950

Payment accepted?

1955

No
1922
Indicate Failure
to user

Receive theme and
any associated
theme related
information

1960

Yes
1960
Receive theme and
any associated
theme related
information

1965

Store received information,
and load for use if
immediately useful

1965
Send request for theme to theme
server, including any access
information and payment information

2000

Fig. 20

Automated Theme Customizer Routine

2005

Receive indications of available themes

2010

Repeatedly monitor user actions, including interactions with themes, modifications to themes, and explicit changes to the current theme or the current context

2015

Analyze monitored actions to determine patterns of actions

No

Any patterns above relevance threshold?

Yes

Retrieve user preference information

2025

Determine modifications to some or all themes that are consistent with patterns above the relevance threshold and with user preferences

2030

Do automated modification?

2035

No

Present suggested modifications to the user

2050

Modify themes as determined

2040

Notify user of modifications

2055

Receive indications of accepted modifications

2045

2060

Continue?

2065

Modify themes as indicated

2095

END